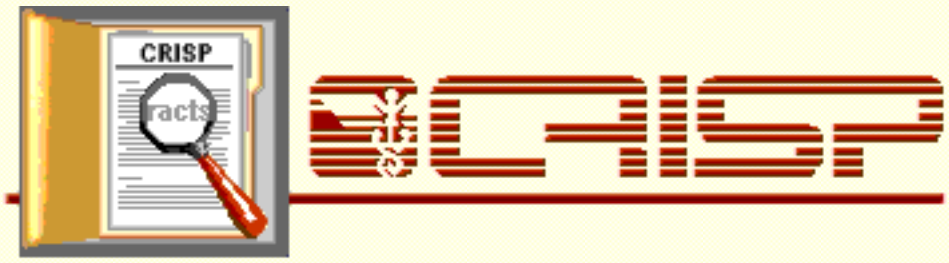
Version 2.0



Abstract

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PI Title:

Project Title: NK CELL ACTIVITY AND IBS ACROSS THE MENSTRUAL CYCLE

Abstract: *The purpose of this study is to compare natural killer (NK) cell percentage and activity across the menstrual cycle in women with and without irritable bowel syndrome (IBS). NK cells are unique amongst immune cells because their percentage and activity vary in response to many emotional, cognitive and physiological stressor (e.g., anxiety, depression, perceived lack of personal control, bereavement, and exercise). Cognitive/emotional stressors are often experienced by persons with chronic health disturbances. Further, NK function many be amenable to change with interventions targeting distress in normal persons, ill persons, or their caregivers. This study will compare a sample of women with a chronic health disturbance Further, NK function may be amenable to change with interventions targeting distress in normal persons, ill persons, or their caregivers. This study will compare a sample of women with a chronic health disturbance, IBS, with control women without chronic gastrointestinal (GI) symptoms. Differences in physiological arousal and immune function will be examined within the context of menstrual cycle phase. This study is innovative in that it is designed to examine the relationship between stress-related psychological and physiological variables and immune function within the context of menstrual cycle phase in 2 groups of women, one symptomatic without an identified underlying inflammatory component but with evidence of physiological arousal (HPA axis and SNS activation) and another as control. Prior research by others has documented elevated stress hormone levels in women with IBS. Preliminary data suggest innate immune function differs in women with and without symptomatic IBS. Specific aims are to: 1) describe the levels of specific immune function markers across menstrual cycle phases, and test for cycle phase and group difference sin*

normally menstruating women with and without IBS; 2) extend and affirm the work of others by describing levels of stress and ovarian hormones, and self-report distress across 3 menstrual cycle phases, and by testing for cycle phase and group differences in these variables; and 3) examine the relationship of immune function to measures of physiological arousal, physical and psychological distress, and ovarian hormones during each menstrual cycle phase. Descriptive and correlational statistical and repeated measures ANOVA will be used in data analysis. If a relationship exists between chronic distress and NK cell function, there would be important clinical implications for identifying women at risk for experiencing chronic distress, and for developing and testing interventions targeting distress reduction in vulnerable populations.

Thesaurus Terms:
irritable bowel syndrome, menstrual cycle, natural killer cell
cellular immunity
clinical research, female, human subject, women's health

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